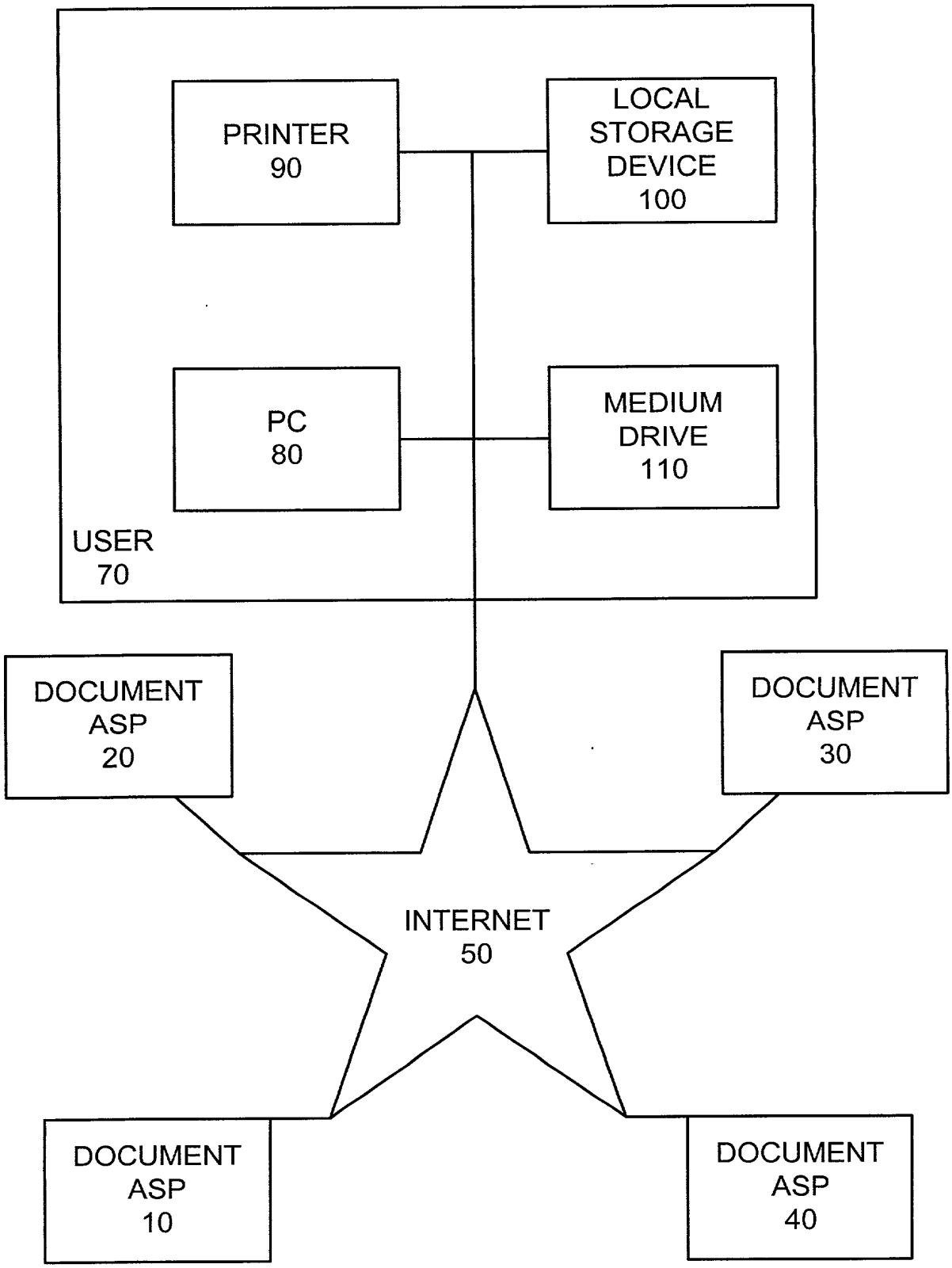


FIG. 1

PRIOR ART

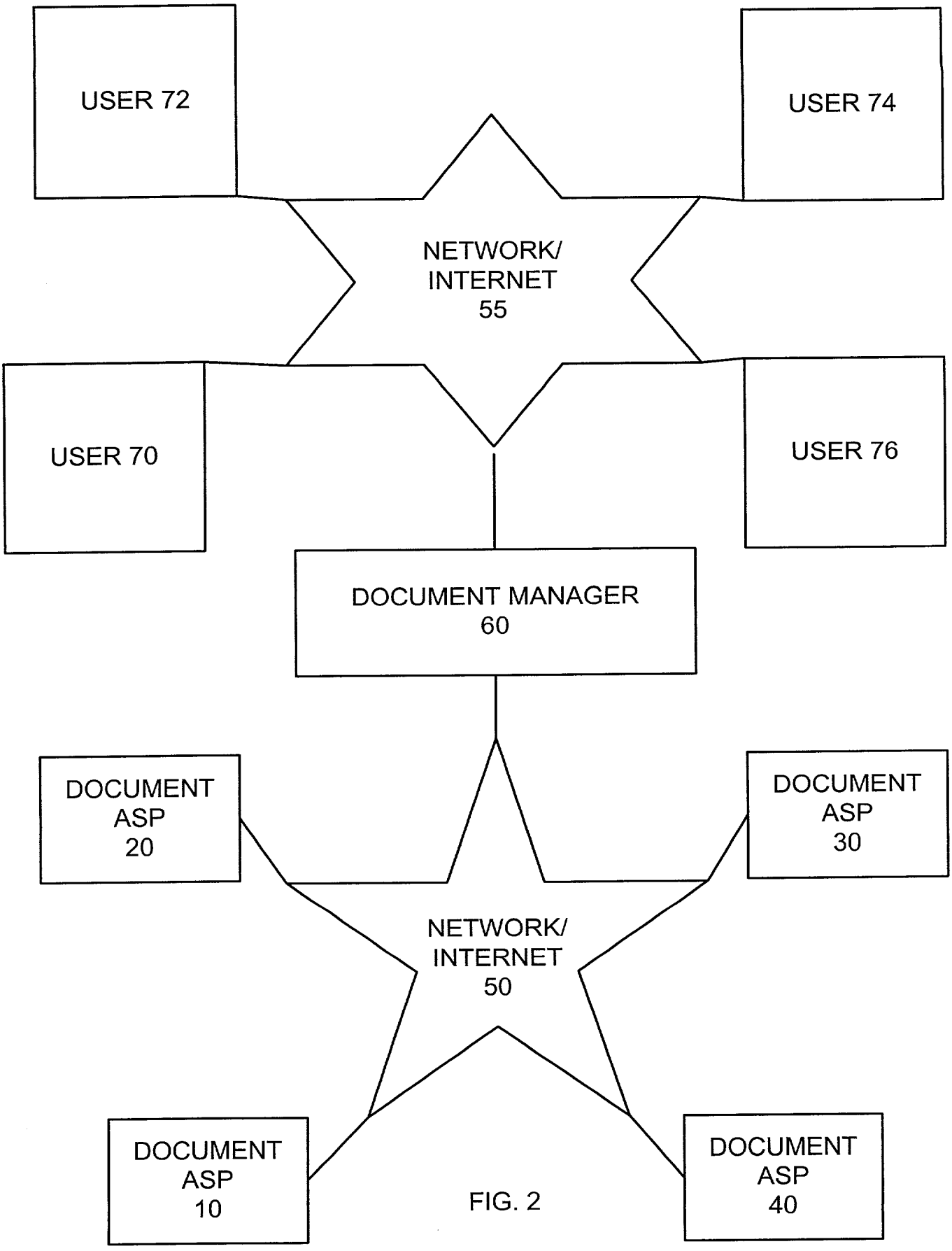

USER 72
USER 74
NETWORK/
INTERNET
55
USER 70
USER 76
DOCUMENT MANAGER
60
DOCUMENT
ASP
20
DOCUMENT
ASP
30
NETWORK/
INTERNET
50
DOCUMENT
ASP
10
DOCUMENT
ASP
40

FIG. 2

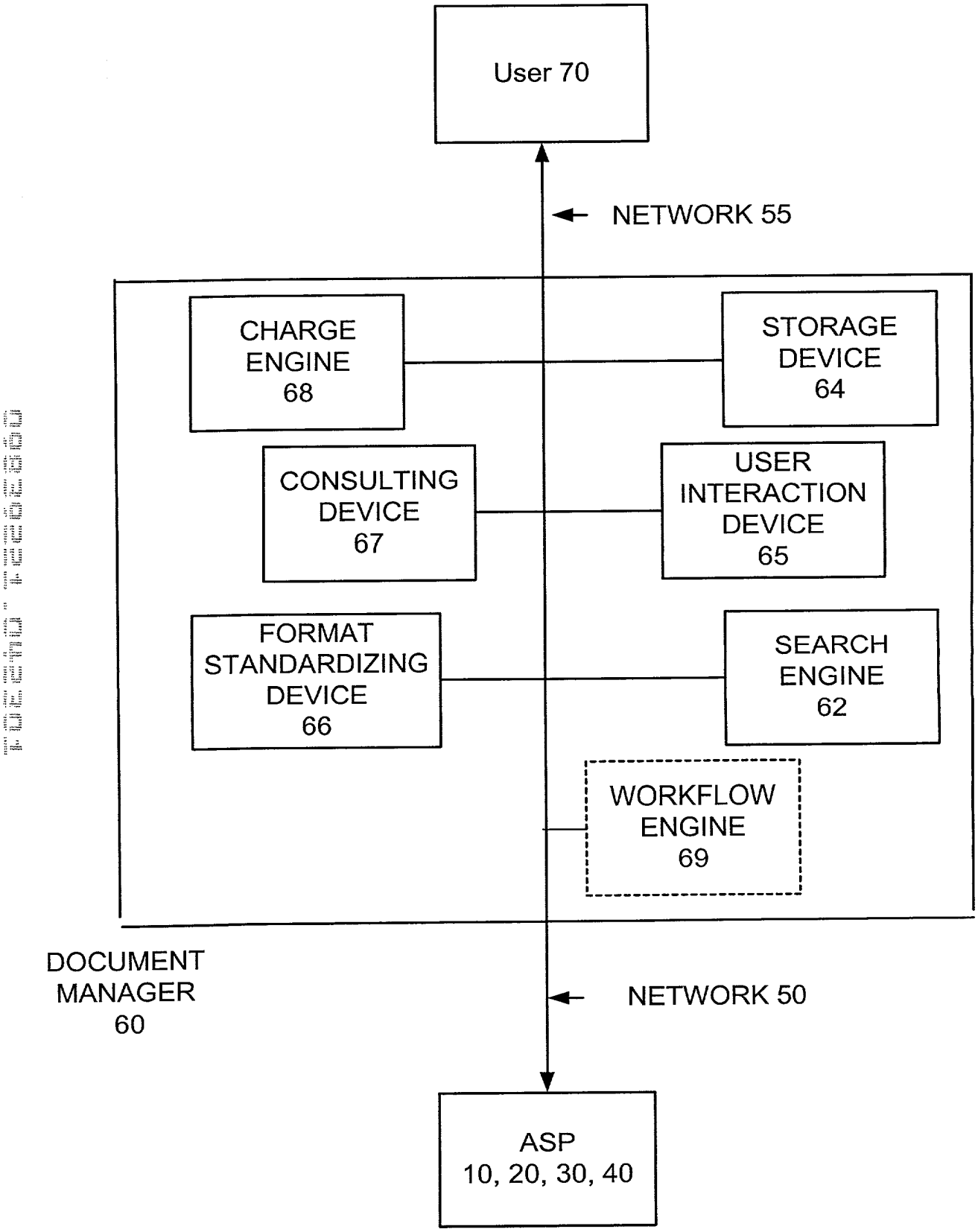

User 70
NETWORK 55
CHARGE ENGINE 68
STORAGE DEVICE 64
CONSULTING DEVICE 67
USER INTERACTION DEVICE 65
FORMAT STANDARDIZING DEVICE 66
SEARCH ENGINE 62
WORKFLOW ENGINE 69
DOCUMENT MANAGER 60
NETWORK 50
ASP 10, 20, 30, 40

FIG. 3

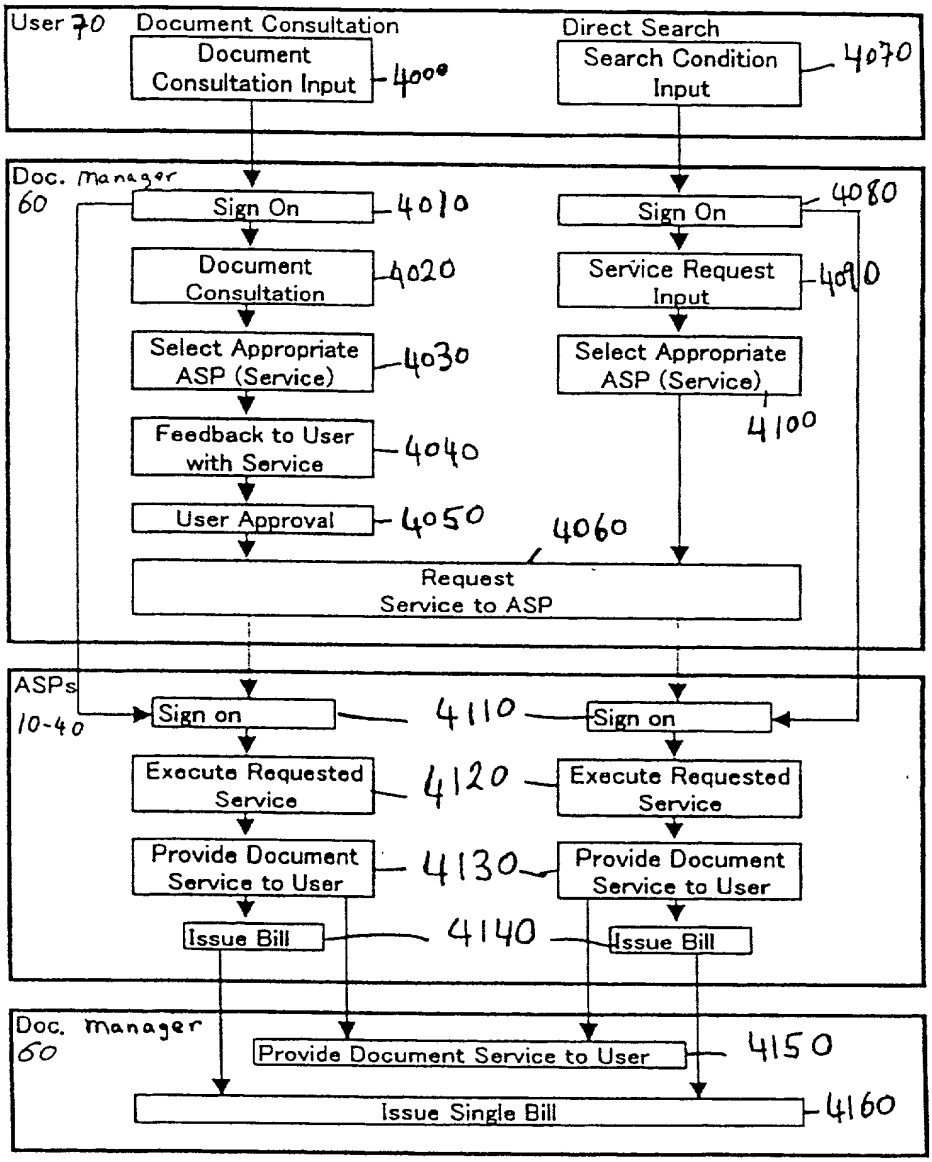

User 70
Document Consultation
Document Consultation Input
4000
Direct Search
Search Condition Input
4070
Doc. Manager 60
Sign On
4010
Document Consultation
4020
Select Appropriate ASP (Service)
4030
Feedback to User with Service
4040
User Approval
4050
4060
Request Service to ASP
Sign On
4080
Service Request Input
4090
Select Appropriate ASP (Service)
4100
ASPs 10-40
Sign on
4110
Sign on
Execute Requested Service
4120
Execute Requested Service
Provide Document Service to User
4130
Provide Document Service to User
Issue Bill
4140
Issue Bill
Doc. Manager 60
Provide Document Service to User
4150
Issue Single Bill
4160

FIG. 4

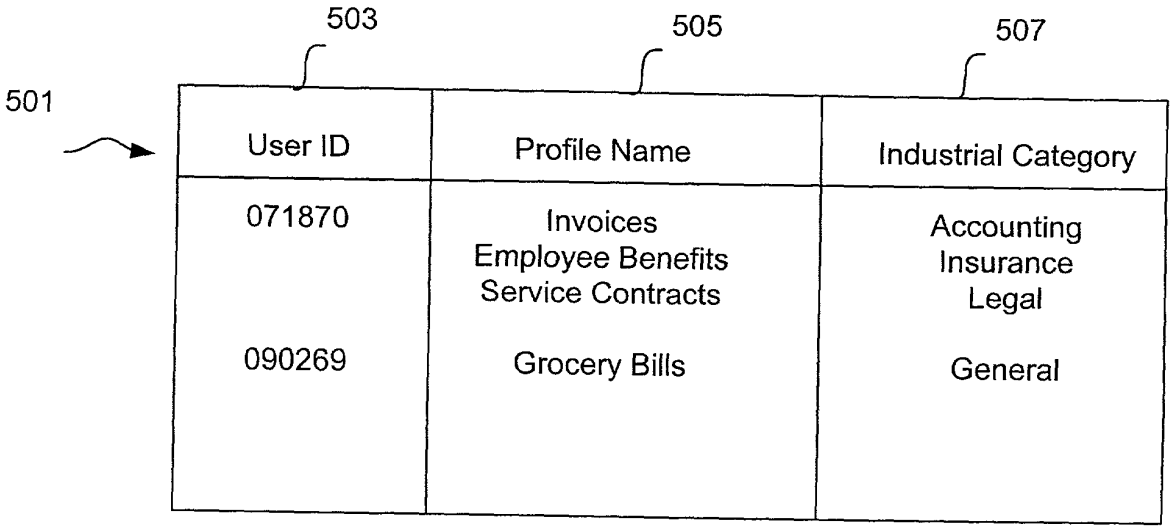


FIG. 5A

510

511 Industrial Category	513 Encryption	515 Access Level Control	517 Phisical Storage	519 Security Policy	521 Internet Security	523 Offsite Backup	525 Audit	527 Collabolation	529 Workflow Transmission	531 Archiving	533 Image Input	535 Selected ASP
Real Estate		Necessary			Necessary			Necessary			Necessary	ASP 6
Medical		Necessary			Necessary		Necessary		Necessary	Necessary		ASP 4
Insurance		Necessary			Necessary		Necessary		Necessary	Necessary	Necessary	ASP 5
Accounting		Necessary		Necessary	Necessary		Necessary	Necessary	Necessary			ASP 3
Legal		Necessary	Necessary	Necessary	Necessary		Necessary	Necessary		Necessary		ASP 2
Financial	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary			Necessary		ASP 1
Geberal					Necessary							ASP 1-6

FIG. 5B

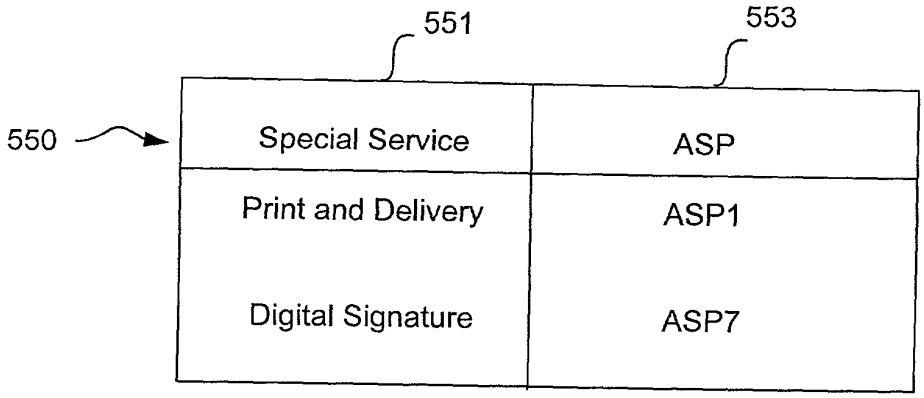


FIG. 5C

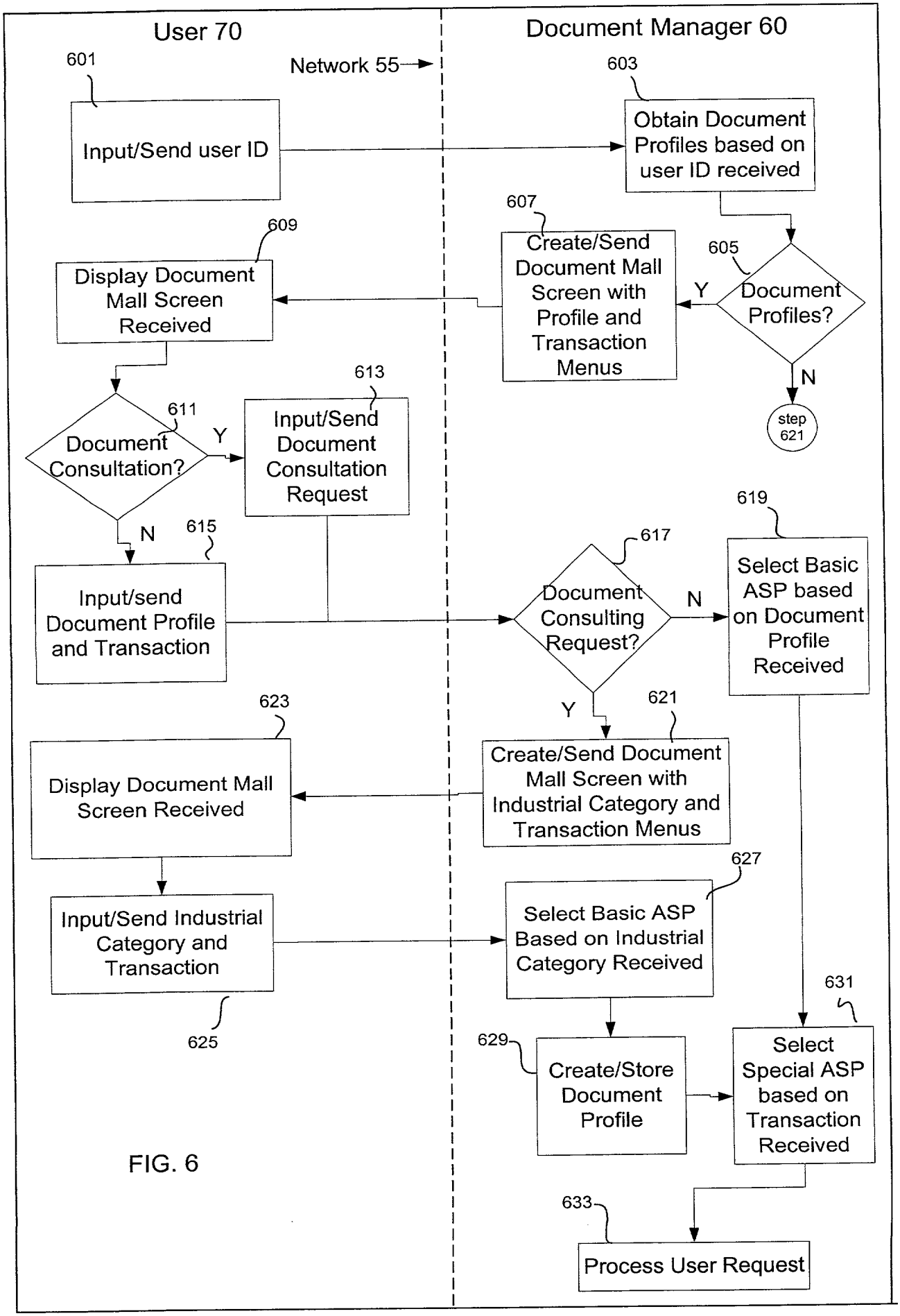

User 70
Document Manager 60
Network 55
601
Input/Send user ID
603
Obtain Document Profiles based on user ID received
605
Document Profiles?
Y
N
607
Create/Send Document Mall Screen with Profile and Transaction Menus
609
Display Document Mall Screen Received
step 621
611
Document Consultation?
Y
N
613
Input/Send Document Consultation Request
615
Input/send Document Profile and Transaction
617
Document Consulting Request?
N
Y
619
Select Basic ASP based on Document Profile Received
621
Create/Send Document Mall Screen with Industrial Category and Transaction Menus
623
Display Document Mall Screen Received
625
Input/Send Industrial Category and Transaction
627
Select Basic ASP Based on Industrial Category Received
629
Create/Store Document Profile
631
Select Special ASP based on Transaction Received
633
Process User Request

FIG. 6

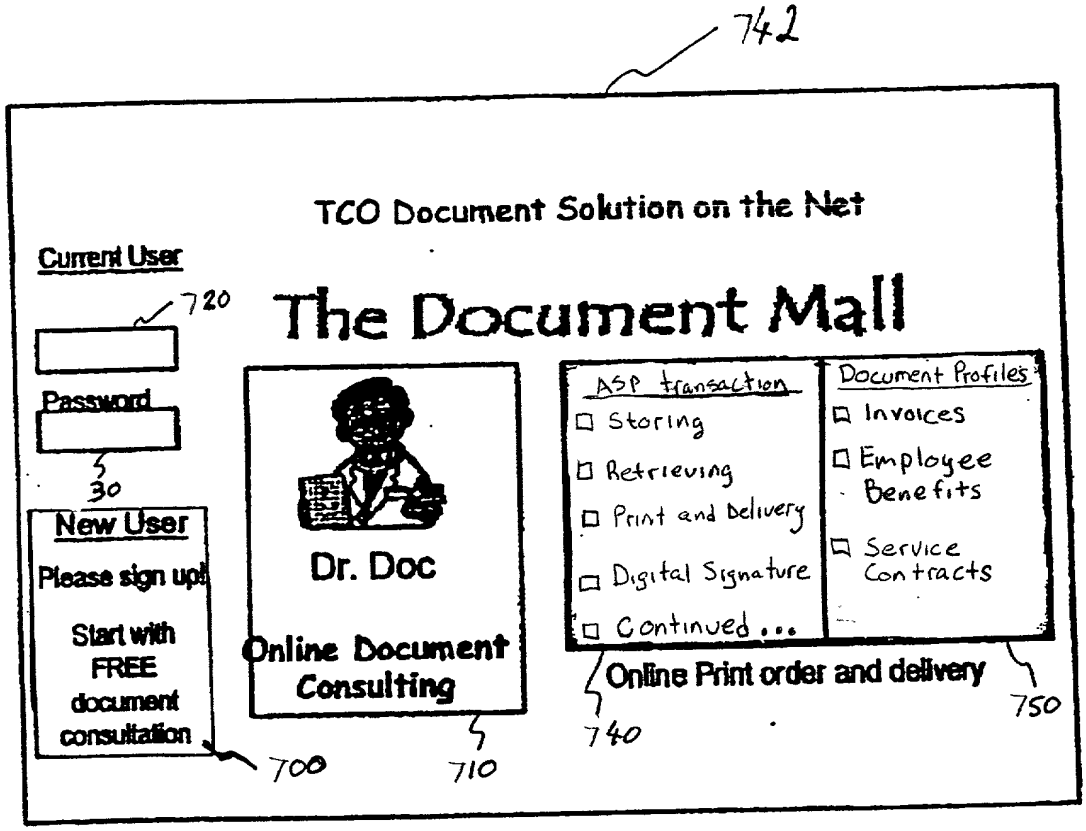

742
TCO Document Solution on the Net
Current User
720
The Document Mall
Password
30
New User
Please sign up!
Start with FREE document consultation
700
Dr. Doc
Online Document Consulting
710
ASP transaction
Storing
Retrieving
Print and Delivery
Digital Signature
Continued...
Document Profiles
Invoices
Employee Benefits
Service Contracts
Online Print order and delivery
740
750

FIG. 7A

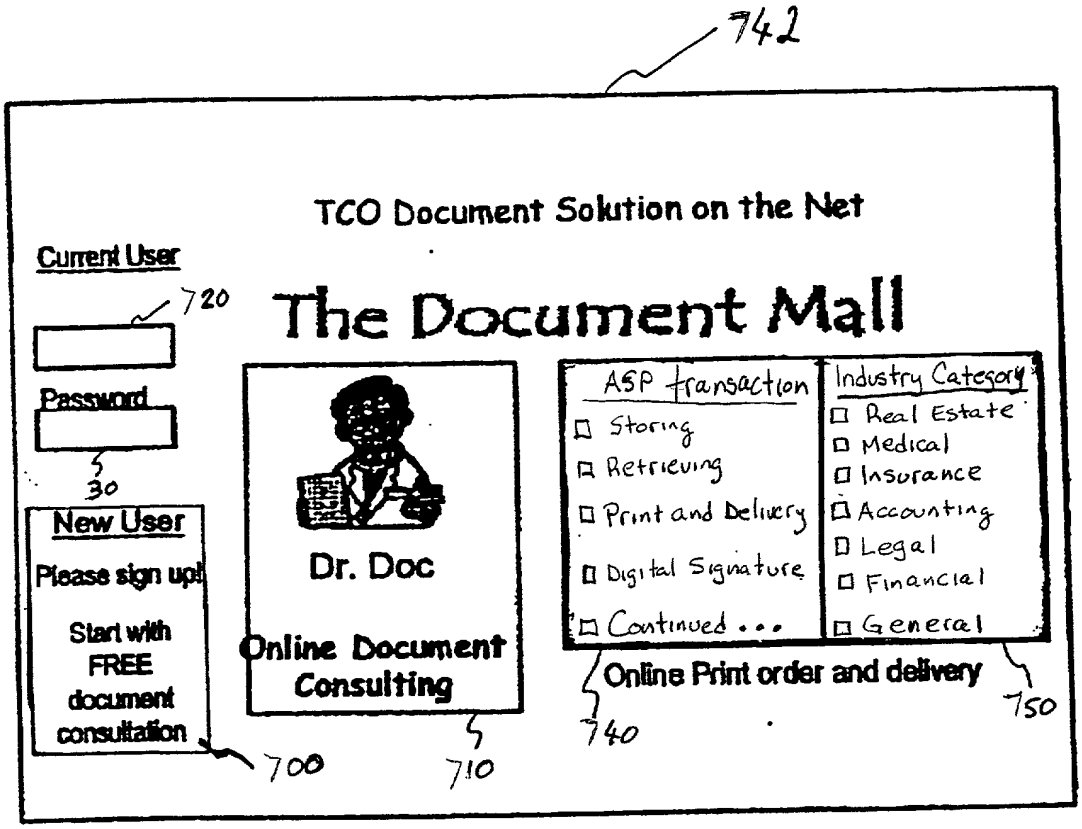

742
TCO Document Solution on the Net
Current User
720
The Document Mall
Password
30
New User
Please sign up!
Start with FREE document consultation
700
Dr. Doc
Online Document Consulting
710
ASP transaction
Storing
Retrieving
Print and Delivery
Digital Signature
Continued ...
Industry Category
Real Estate
Medical
Insurance
Accounting
Legal
Financial
General
Online Print order and delivery
740
750

FIG. 7B

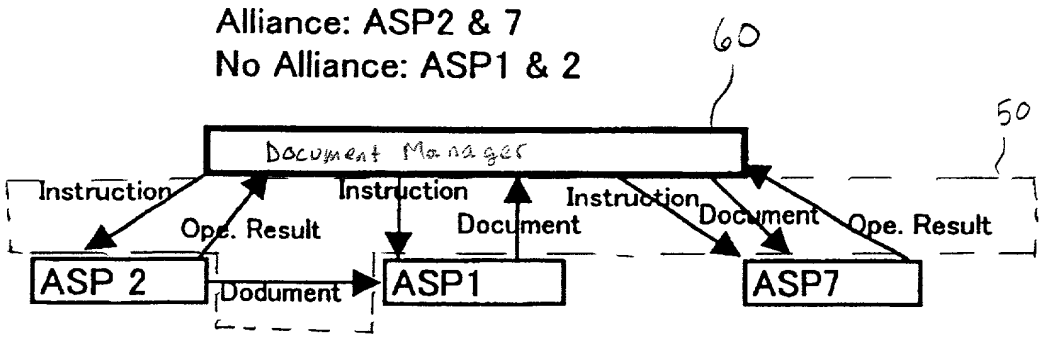

Alliance: ASP2 & 7
No Alliance: ASP1 & 2
60
50
Document Manager
Instruction
Ope. Result
Instruction
Document
Instruction
Document
Ope. Result
ASP 2
Dodument
ASP1
ASP7

FIG. 8

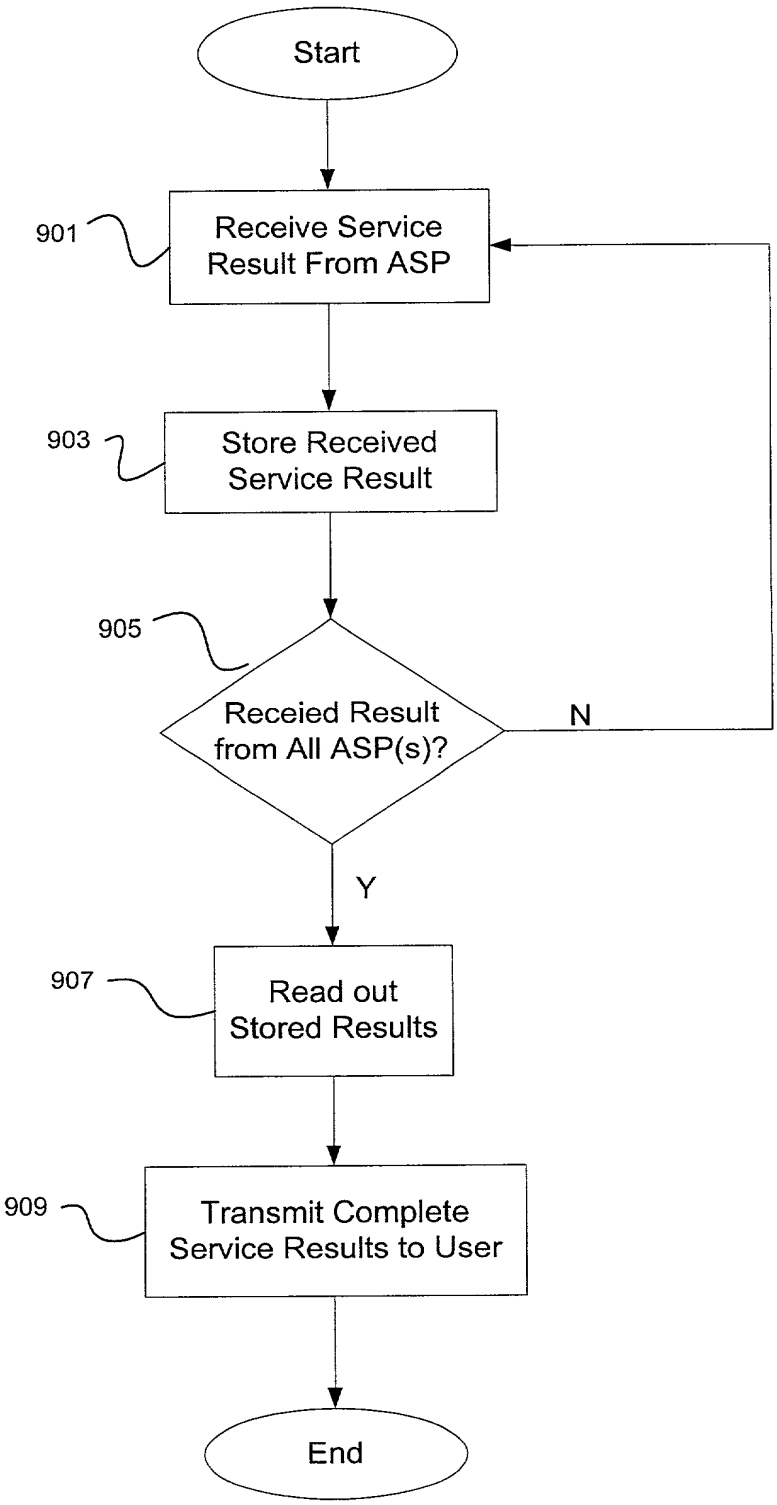

Start
901
Receive Service Result From ASP
903
Store Received Service Result
905
Receied Result from All ASP(s)?
N
Y
907
Read out Stored Results
909
Transmit Complete Service Results to User
End

FIG. 9

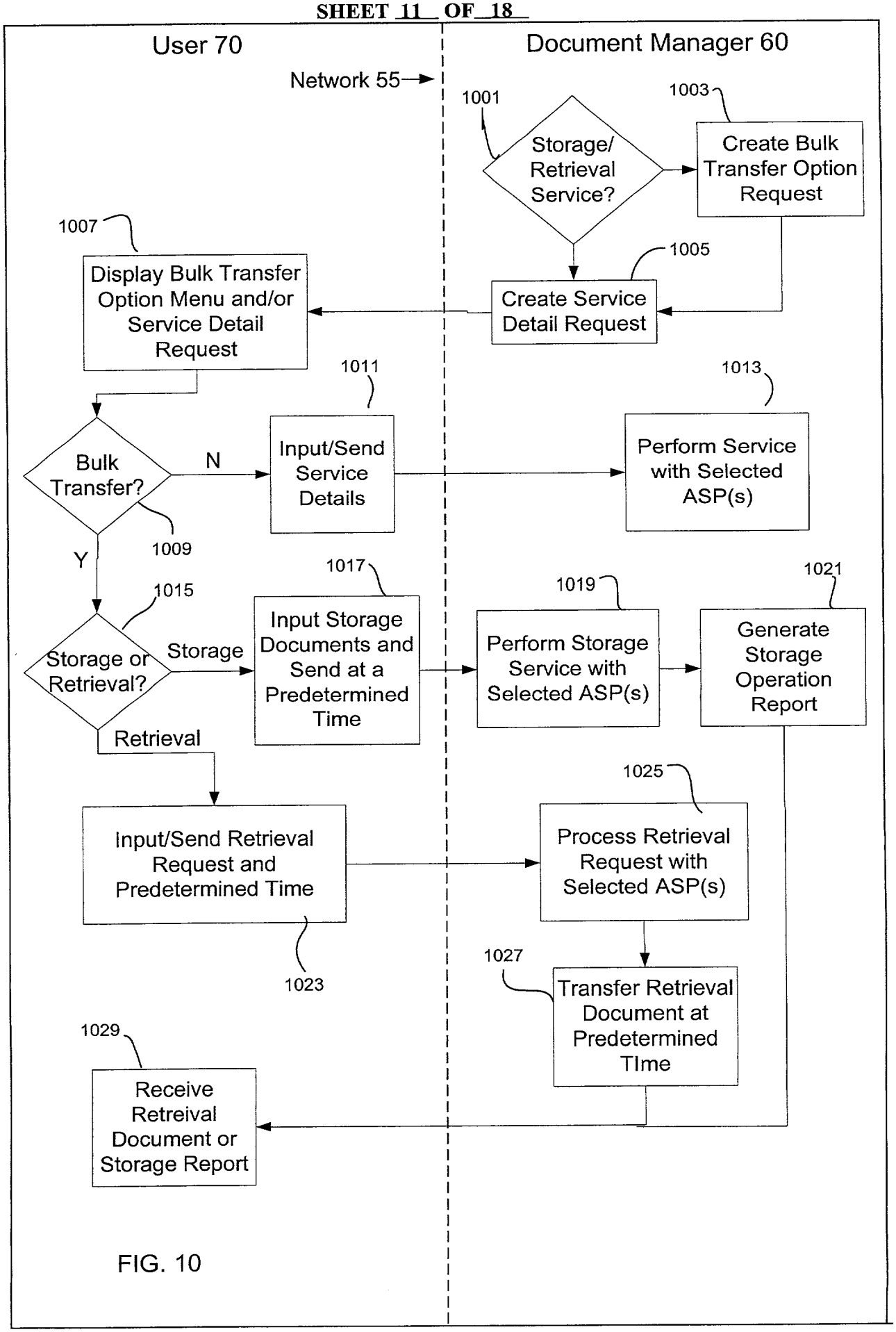

User 70
Document Manager 60
Network 55
1001
Storage/ Retrieval Service?
1003
Create Bulk Transfer Option Request
1005
Create Service Detail Request
1007
Display Bulk Transfer Option Menu and/or Service Detail Request
1009
Bulk Transfer?
N
Y
1011
Input/Send Service Details
1013
Perform Service with Selected ASP(s)
1015
Storage or Retrieval?
Storage
Retrieval
1017
Input Storage Documents and Send at a Predetermined Time
1019
Perform Storage Service with Selected ASP(s)
1021
Generate Storage Operation Report
1023
Input/Send Retrieval Request and Predetermined Time
1025
Process Retrieval Request with Selected ASP(s)
1027
Transfer Retrieval Document at Predetermined TIme
1029
Receive Retreival Document or Storage Report

FIG. 10

FIG. 11A

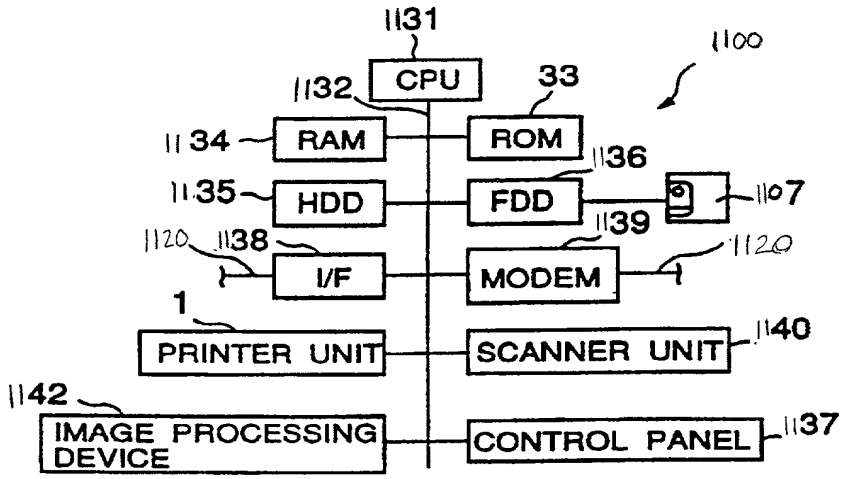
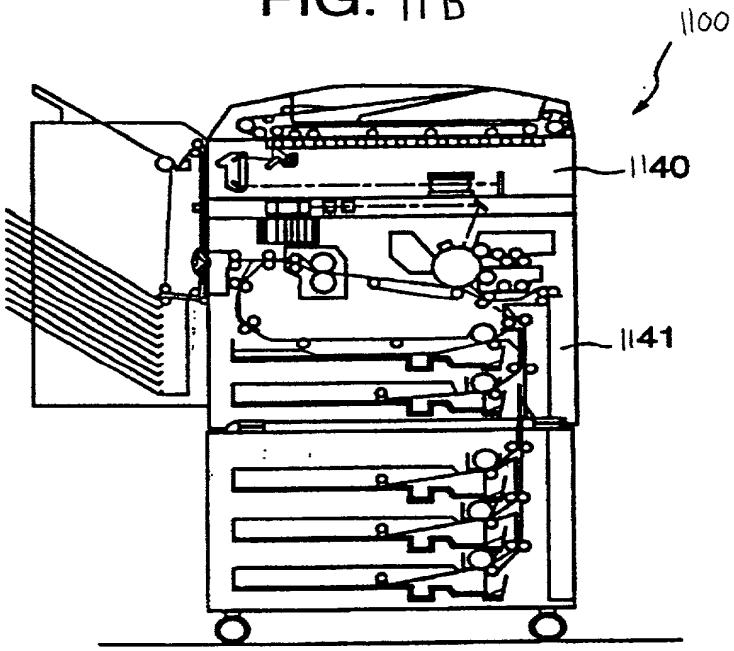


FIG. 11B



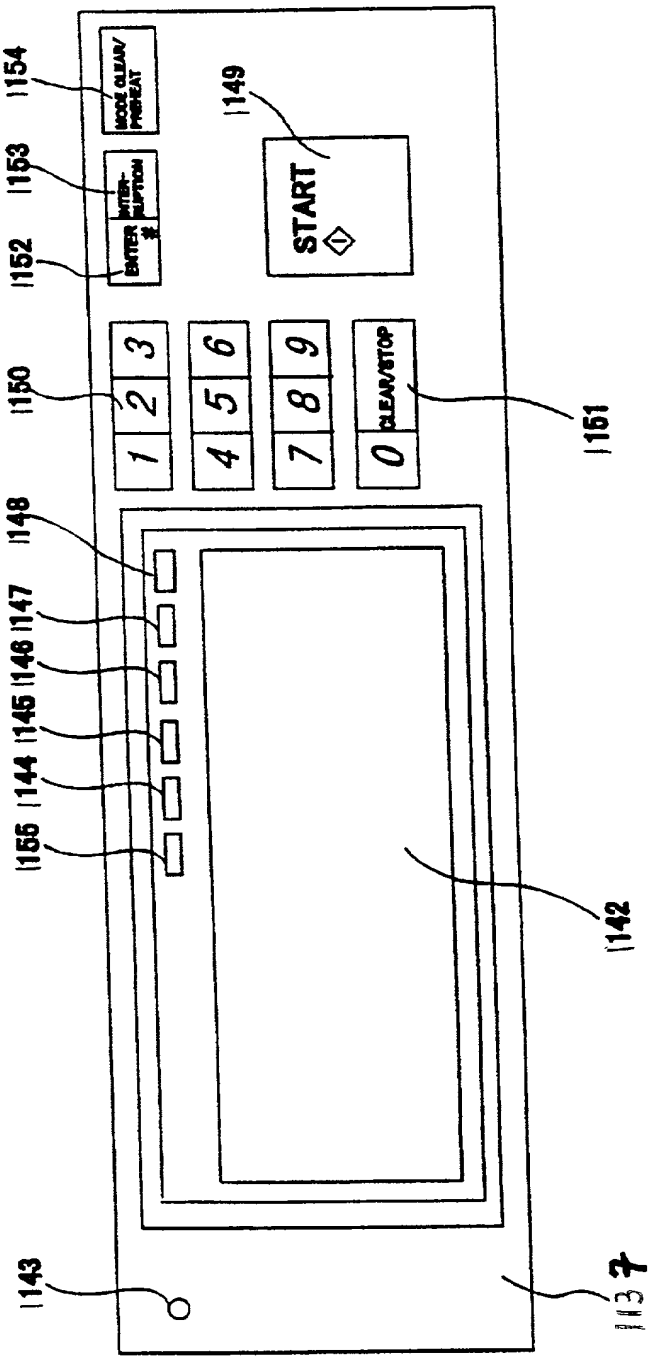

154
153
152
150
148
147
146
145
144
156
143
149
161
142
137
MODE CLEAR/ PREHEAT
ENTER
START
1 2 3
4 5 6
7 8 9
0
CLEAR/STOP

Fig. 11C

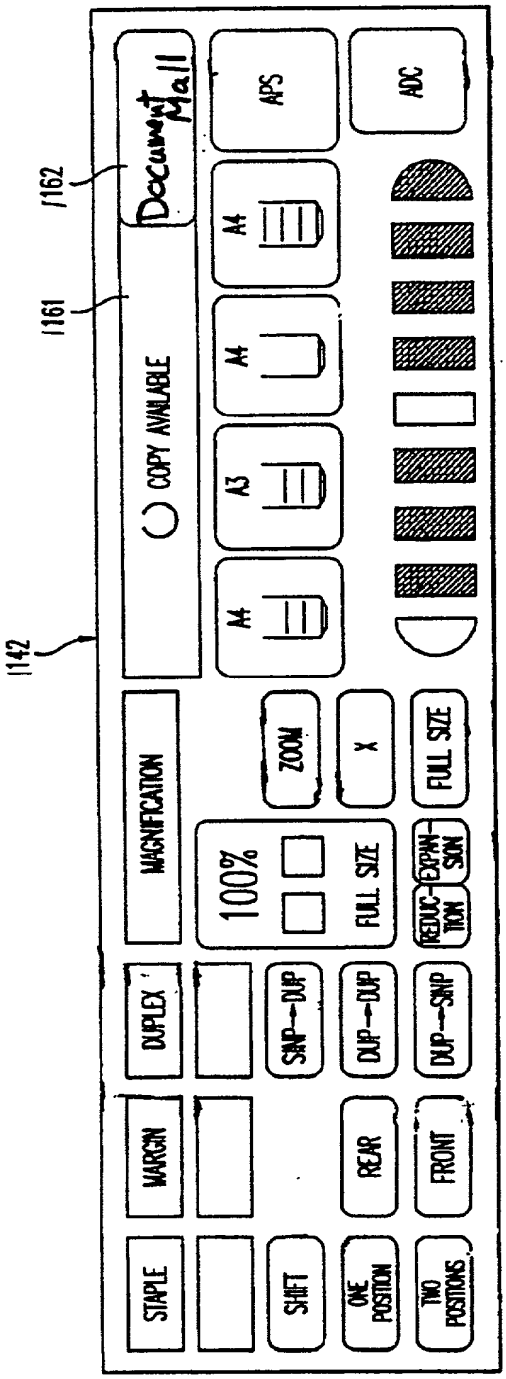

1142
1161
1162
COPY AVAILABLE
Document Mail
A4
A3
A4
A4
APS
ADC
MAGNIFICATION
100%
ZOOM
X
FULL SIZE
FULL SIZE
REDUC-TION
EXPAN-SION
DUPLEX
SNAP→DUP
DUP→DUP
DUP→SNAP
MARGIN
REAR
FRONT
STAPLE
SHIFT
ONE POSITION
TWO POSITIONS

FIG. 11D

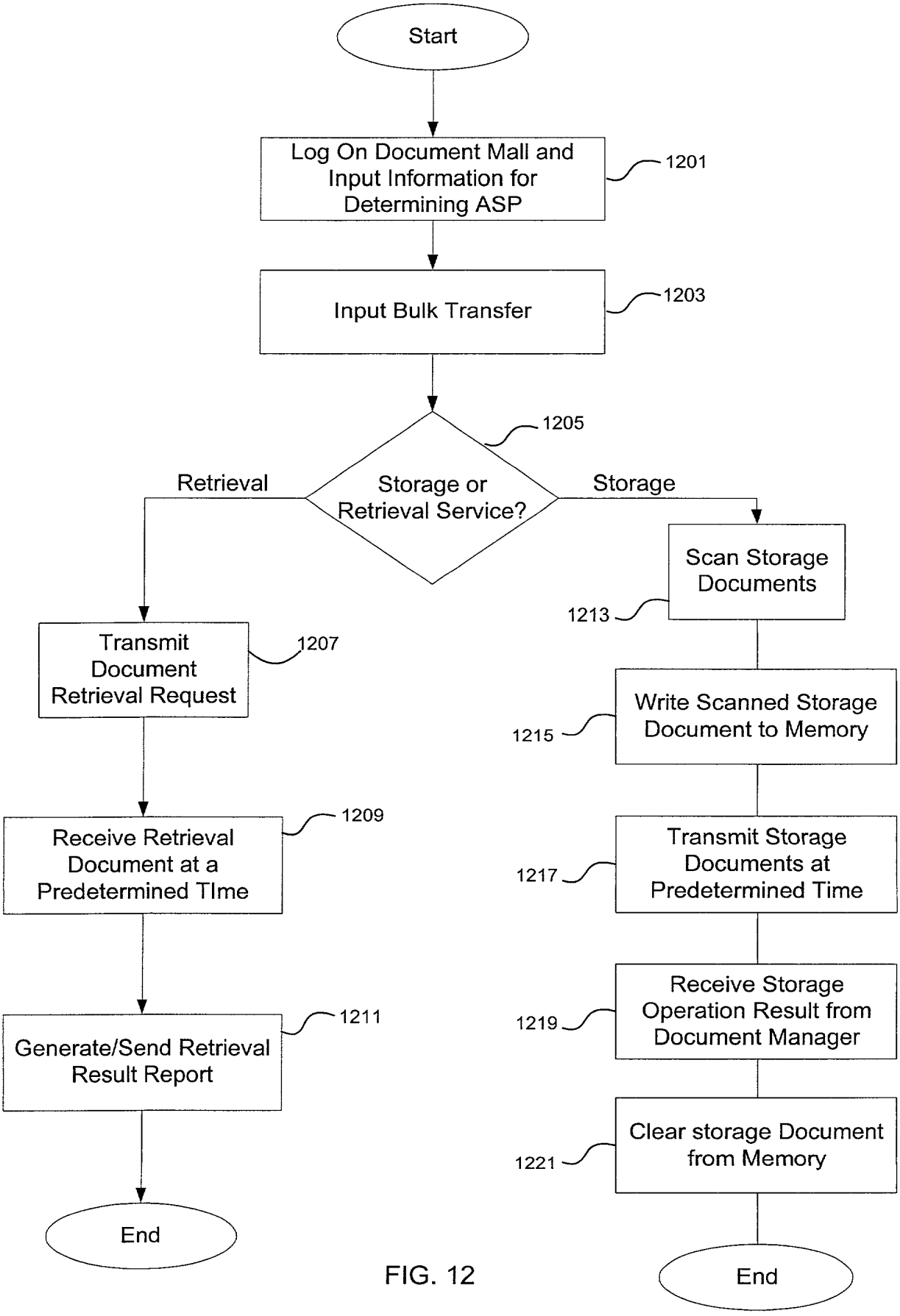

Start
Log On Document Mall and Input Information for Determining ASP
1201
Input Bulk Transfer
1203
1205
Storage or Retrieval Service?
Retrieval
Storage
Transmit Document Retrieval Request
1207
Receive Retrieval Document at a Predetermined TIme
1209
Generate/Send Retrieval Result Report
1211
End
Scan Storage Documents
1213
Write Scanned Storage Document to Memory
1215
Transmit Storage Documents at Predetermined Time
1217
Receive Storage Operation Result from Document Manager
1219
Clear storage Document from Memory
1221
End

FIG. 12

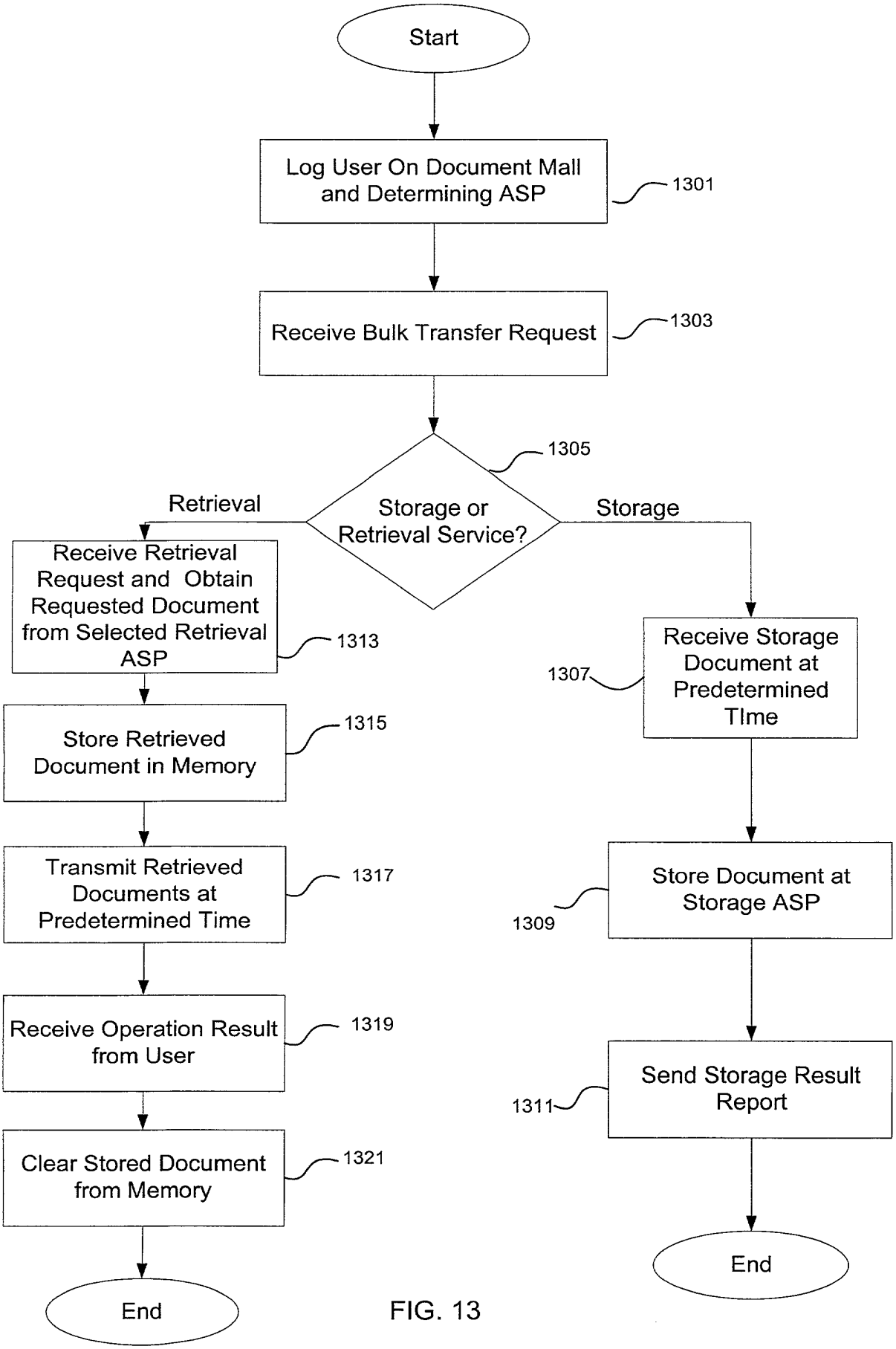

Start
Log User On Document Mall and Determining ASP
1301
Receive Bulk Transfer Request
1303
1305
Storage or Retrieval Service?
Retrieval
Storage
Receive Retrieval Request and Obtain Requested Document from Selected Retrieval ASP
1313
Store Retrieved Document in Memory
1315
Transmit Retrieved Documents at Predetermined Time
1317
Receive Operation Result from User
1319
Clear Stored Document from Memory
1321
End
Receive Storage Document at Predetermined TIme
1307
Store Document at Storage ASP
1309
Send Storage Result Report
1311
End

FIG. 13

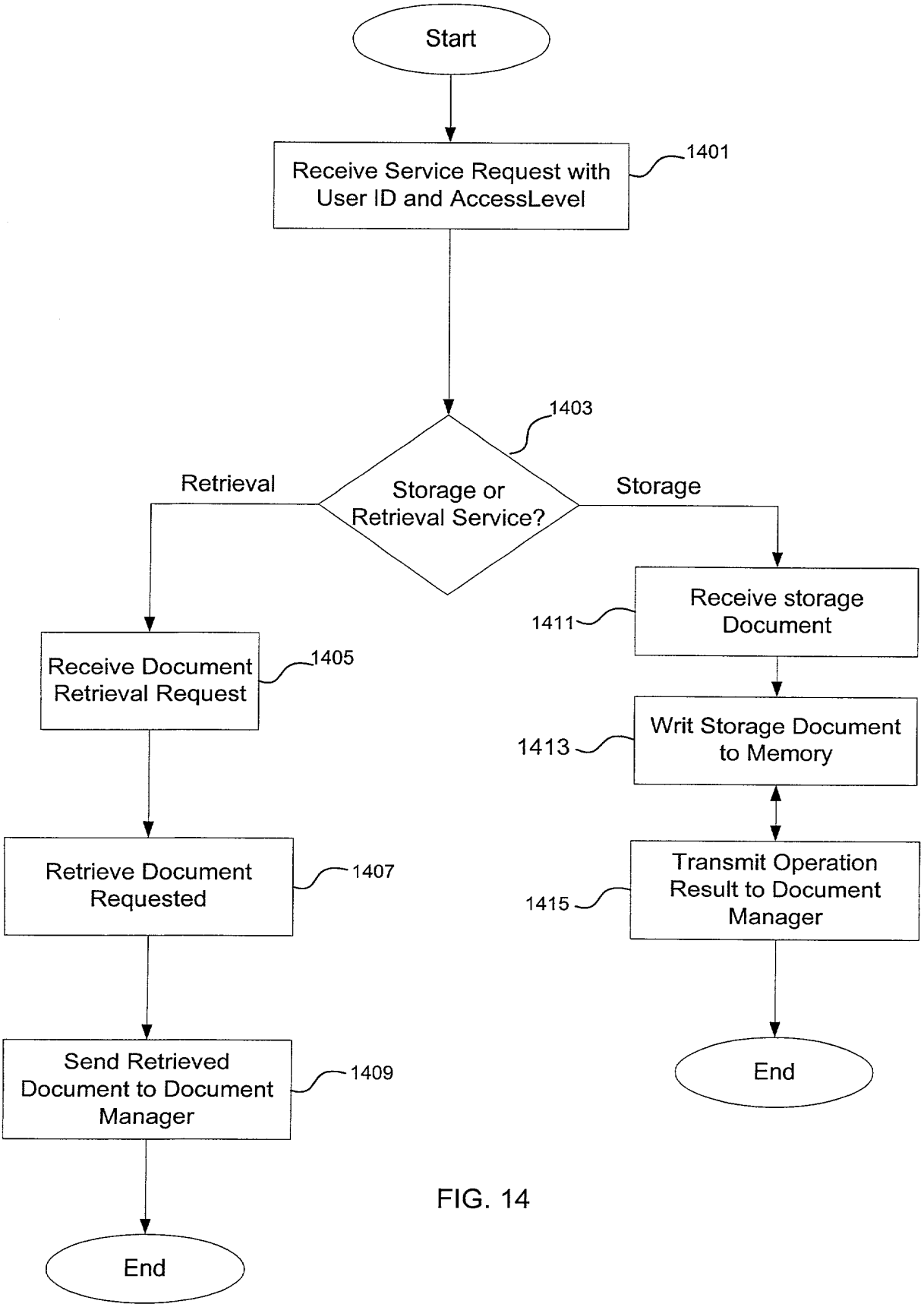

Start
Receive Service Request with User ID and AccessLevel
1401
Storage or Retrieval Service?
1403
Retrieval
Storage
Receive Document Retrieval Request
1405
Retrieve Document Requested
1407
Send Retrieved Document to Document Manager
1409
End
Receive storage Document
1411
Writ Storage Document to Memory
1413
Transmit Operation Result to Document Manager
1415
End

FIG. 14

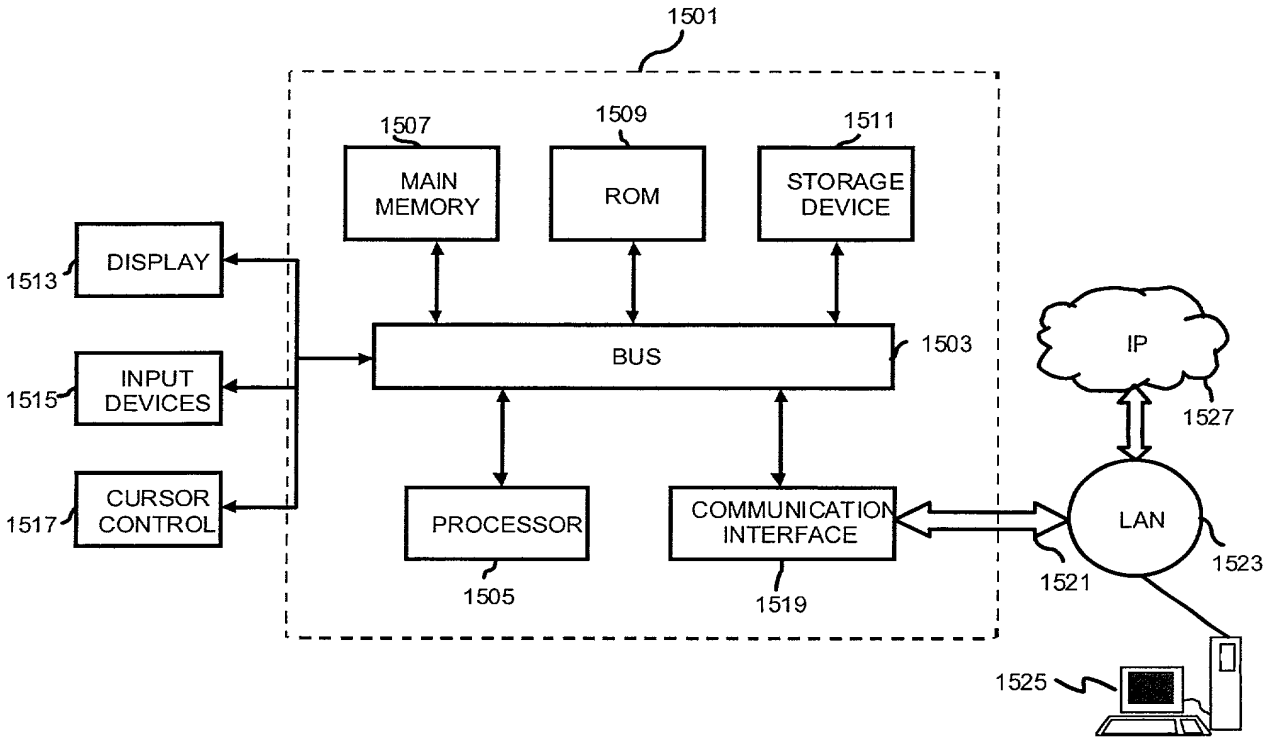

1501
1507
MAIN MEMORY
1509
ROM
1511
STORAGE DEVICE
DISPLAY
1513
INPUT DEVICES
1515
CURSOR CONTROL
1517
BUS
1503
PROCESSOR
1505
COMMUNICATION INTERFACE
1519
IP
1527
LAN
1523
1521
1525

FIG. 15